

## **Brucellosis Coordination Team Meeting**

June 17, 2004  
Lander, Wyoming

### **Attendees:**

Terry Pollard, Donal O'Toole, Karl Musgrave, Erika Olson, Joel Bousman, Ken Mills, Bill Williams, Brent Larson, John Etchepare, Rob Hendry, Frank Galey, Bob Wharff, Scott Werbelow, John Hines, Tom Thorne, Terry Cleveland, Terry Kreeger, Bret Combs, Jim Logan, Bill Lambert, Dave Roberts and Cathy Purves.

### **Introduction:**

Dr. Galey started with introductions and an overview of the agenda, highlighting the recent meeting between several team members and cattle producers.

### **Minutes Review:**

The April 22, 2004 Minutes were discussed. Dr. Galey asked for any additions or corrections to the Minutes. Cathy Purves suggested a grammatical change. Dr. Thorne offered some additional corrections. Bob Wharff added several other corrections to quotes that were wrongly attributed to him. Each of the suggestions was incorporated into the Minutes. Terry Cleveland moved approval of the April 22, 2004 Minutes, Rob Hendry seconded. The motion was unanimously approved. The May 20, 2004 Minutes were then discussed. Dr. Galey asked for any additions or corrections to the minutes. Dr. Thorne offered several grammatical changes. Cathy Purves requested that approval of the May 20, 2004 Minutes be put off until June 18, 2004. The group agreed.

### **Handouts:**

Dr. Galey offered several handouts from Ms. Meredith Taylor for the Team's review. He also discussed a recent letter that he sent to the Governor and Legislators. Dr. Galey also introduced the group to a working draft of the proposed report to the Governor and Legislature. He asked that the group review the draft and suggest any changes.

### **Discussion:**

#### **Meeting Between Ranchers and Game and Fish:**

Dr. Logan began the discussion with a description of a meeting that was held between Game and Fish and ranchers surrounding feedground management plans and elk herd unit management. Dr. Logan said that the focus of the meeting was to list the conflicts that exist between cattle and wildlife interests. Among the items that were discussed included: selling allotments on federal grazing lands and conservation easements. The ranchers indicated that they were not interested in employing these concepts. Other points of discussion

were: using sound science to make necessary decisions, elk population and carrying capacity of winter ranges, feedgrounds (size of the feedgrounds, management, fencing) and eradication of Brucellosis in elk in the context of test and slaughter and test and spay, importance of WGFD budget and the constraints that the agency's limited means might have on eradication efforts. Scott Werbelow added that there were questions about how elk numbers were determined. Alternative funding for WGFD was an outgrowth of the discussion related to the budget constraints. Similar meetings will be held in the future.

#### Subcommittee Reports:

Wildlife: Dr. Thorne has developed a list of issues from his notes related to wildlife. The list is extensive and deals with new issues as well as others, from previous task forces, that have yet to be fully addressed. The subcommittee will be offering suggestions related to the list that will lead to best management practices and recommendations.

Response to Subsequent Outbreak and Human Health: Dr. Galey asked these committees to offer a clear roadmap for discussion in July in a recent teleconference. Dr. Logan offered an update on the Subsequent Outbreak subcommittee. He asked that the committee offer specific recommendations to assist him in developing the roadmap. Dr. Logan indicated that the group is trying to develop a communications/decision tree, logistics of handling an outbreak (who do you contact, when) and a breakdown of the relevant rules and statutory requirements. Rob Hendry offered praise for Drs. Logan and Combs' efforts to communicate, during the most recent outbreak, with other states. Dr. Thorne asked that the Team keep in mind that the fact that discussions of the response protocol were taking place should not be interpreted to mean that the most recent response was poor. Dr. Musgrave detailed the Human Health committee's work. Dr. Musgrave told the group that he had visited with Dr. Tom Clark of the CDC and Dr. Chuck Hayes of the Wyoming Mental Health Division about presenting during the July meeting. A conference call will be held during the first week of July for the committee for a more detailed discussion.

Transmission and Cattle: Rob Hendry encouraged his subcommittee to provide as much input as possible. He added that a recent meeting in Colorado, with the Colorado Cattlemen's group, was quite productive.

#### July Meeting:

The tour of the Muddy and Soda Lake Feedgrounds, in July, will start at 8:00 in the morning on July 20. The Muddy feedground will be toured in the morning and Soda Lake is slated for the afternoon.

#### GIS Update:

Dr. Galey and Ryan Lance updated the group on the status of the GIS/WGFD funding request that was forwarded to the Governor. Dr. Thorne asked that Team members and ranchers relate their ideas to and be open to suggestions from Brandon Scurlock.

At this point, the Team resumed its discussion of the Best Management Practices for Brucellosis transmission and cattle, from the May meeting. Those that follow were agreed to, for inclusion, by the Team. Those from the "All Suggestions" list from May that are not listed were not adopted as BMPs. BMPs are to be looked at as potential tools, applicable in many but not all situations. Also, whenever Brucellosis is mentioned, the intended strain is *Brucella abortus*.

#### Transmission from Wildlife

- Develop and implement elk feedground management plans with specific sections for each feedground.
- Make GIS mapping available to producers and land managers to help avoid elk and bison calving areas. (This BMP was incorporated into a previous BMP, from May. The whole BMP now reads: Make available all applicable data including GIS mapping with stakeholders (Livestock Board, APHIS, producers, Game and Fish, area veterinarians, state, federal and local agencies and the general public.)) *A discussion regarding sharing information about allotments and private tracts ensued. Members identified concerns that may arise in the ranching community related to sharing such data with the general public.*
- Maintain elk, bison and cattle separation (spatial and/or temporal) during critical periods of exposure to Brucellosis. (Individual unit plans should address the "critical periods of exposure.")
- "Elkproof" fence livestock stackyards when appropriately incorporated into management plans.
- Feed on fresh snow, in different locations, when possible.

Dr. Galey reminded the group that when elk are mentioned, bison are included. Similarly, when cattle are mentioned, domesticated bison are included.

#### Surveillance

- Follow APHIS and Livestock Board rules for Brucellosis testing.
- Cull cattle shall be tested prior to change of ownership. *A discussion ensued regarding the appropriate level and scope of testing throughout Wyoming.*
- Continue to test all test eligible cattle and domestic bison from non-certified Brucellosis Free herds from high risk areas on change of ownership or on movement from the area.
- Work with the state and APHIS in promoting voluntary certified Brucellosis Free herds in the risk area.
- Establish a federal veterinarian based in the risk area.

The Team then moved on to recommendations for Brucellosis transmission and cattle.

**Recommendations for Alleviating Brucellosis in Cattle and Preventing the Transmission of the Disease:**

1. The Wyoming Game and Fish Department should develop herd unit Brucellosis management plans. These plans should be formulated to include management plans for individual feedgrounds developed in consultation with affected parties. Timeframe TBA.
2. The Livestock Board should promulgate rules, amending the existing Chapter 2 Brucellosis Rules, to enhance Brucellosis surveillance testing. These rules should consider the suggestions contained in the upcoming USDA-APHIS Brucellosis Program Review. Beyond the Program Review's recommendations, the rules revision should consider requiring all cull cattle to be tested prior to change of ownership. The Chapter 2 Rules should also consider requiring the testing of all test-eligible cattle or bison from non-Certified Brucellosis Free Herds from high risk areas after regaining "free status" on change of ownership or on movement from the risk area. The Legislature and federal government should provide funding for the surveillance blood testing. (The Legislature should also assist producers in the risk area with the indirect expenses of Brucellosis above and beyond other statewide requirements. – This sentence appears to implicate a violation of Wyoming Constitution Article 16, Section 6.) *This recommendation received a great deal of discussion and was referred to the Livestock Subcommittee for its attention and wordsmithing.*
3. The Wyoming Livestock Board, in conjunction with USDA-APHIS, should work with producers to promote Certified Brucellosis Free Herd testing. Funding should be recommended from the Legislature. The state should pursue a Memorandum of Understanding with trading partner states regarding acceptance of Certified Brucellosis Free Herds. The Livestock Board and industry should pursue support from USDA-APHIS to assist producers in achieving certification.

The Recommendation discussion ended for the day to make time for a presentation from Dale Strickland. The group was given a copy of the BMPs and was asked to brainstorm additional recommendations for the next day's meeting.

Presentation: Dale Strickland, National Wildlife Federation Feedground Study Hall Sawyer (West, Inc.)

The presentation by Dr. Strickland is summarized in a handout, entitled "Elk Feedground Review and Summary for the National Wildlife Federation."

Generally, Mr. Strickland outlined a study that is currently underway to study the elk feedgrounds.

Public comment was then taken.

APHIS was commended, by the group through Tom Thorne, for responding by hiring a Veterinarian for Western Wyoming. Rob Hendry thanked Game and Fish for starting with the Herd Unit Brucellosis Management Planning effort.

A motion to adjourn for the day was made by Rob Hendry and seconded by Cathy Purves. The vote to adjourn was unanimous.

June 18, 2004

**Attendees:**

Terry Pollard, Donal O'Toole, Karl Musgrave, Erika Olson, Joel Bousman, Ken Mills, Brent Larson, John Etchepare, Rob Hendry, Frank Galey, Scott Werbelow, John Hines, Tom Thorne, Terry Kreeger, Bret Combs, Jim Logan, Bill Lambert, Dave Roberts, Albert Sommers, John Keck and Cathy Purves.

**Presentation:**

Dr. Valerie E. Ragan, DVM, USDA-APHIS, Veterinary Services  
*Management of Cattle for Prevention of Brucellosis*

Dr. Ragan began by discussing "key determinants" in Brucellosis affected herd management. She indicated that communication and cooperation were key, with cattle being the final piece of the discussion. Two-way communication was described as being critical from the outset. With communication, cooperation will follow. In this communication, both parties must have a thorough understanding of the issues. From there, Dr. Ragan indicated that a herd plan could be developed, jointly, with the disease management agency and producer. Availability was described as essential as well. Below is a breakdown of the highpoints of the presentation:

Considerations for Disease Management Agencies:

1. Find – Surveillance
2. Contain – Prevent the spread from infected herds. Vaccination and epidemiology.
3. Eradicate – Elimination of the disease.

Key questions that are asked:

1. Where does the disease come from?

2. What management factors would allow it to spread?

Factors in susceptibility:

1. Age
2. Pregnancy Status
3. Resistance (Vaccine status)

Herd Plan Objectives:

1. Design the herd plan to manage the disease problem, not just cows
2. Work within the regulatory guidelines, but be flexible – tailor to individual herds.
3. Base on sound epidemiological principles.
4. Must be workable and realistic.

Information for a Herd Plan:

1. Technical:
  - a. The disease itself: working knowledge of the disease
  - b. The Brucellosis program: testing requirements, movement of cattle, indemnity.
2. The herd owner:
  - a. Develop communication.
  - b. Encourage cooperation
3. The affected herd:
  - a. History of the herd
  - b. History of the communication
  - c. History of affected herd
4. Husbandry of the affected herd:
  - a. Extrinsic factors (purchases and sales of livestock, status and relationship of adjacent herds)
  - b. Intrinsic factors (size, concentration, breeding practices, whether abortions have occurred, calving practices, management practices, vaccination status, herd stability)
5. Farm Diagram: Need farm/ranch diagram, with where animals are located and movement patterns, calving areas
  - a. Should show locations of pastures, pens, and groups of cattle. Should show types and ages of cattle and their relationships to each other.

- b. Show property options available for use in managing the affected herd.
  - c. Be sure to show adjacent herds, including wildlife and their feedground.
- 6. Basics – should be re-evaluated at least annually, more often if necessary:
  - a. Calving management
  - b. Vaccination practices (adult and/or calfhood)
  - c. Heifer management
  - d. Testing schedules
  - e. Herd replacements
- 7. Herd Immunity – vaccination is a tool, which must be combined with good herd management.
  - a. Adult vaccination
    - i. Evaluate evidence of spread, exposure potential
    - ii. Benefits
  - b. Calfhood vaccination – at 4-12 months of age legally in U.S.
    - i. Best to vaccinate at 4-6 months of age in potentially affected herds
    - ii. Gets them vaccinated before they reach sexual maturity
    - iii. Shortens the exposure period prior to vaccination
- 8. Calving management – this is the single most important part of the herd plan, as the pathogenesis and epidemiology of Brucellosis center around reproduction.
  - a. Use seasonal breeding if possible. Excellent Brucellosis management procedure, especially in beef herds. If practical, the breeding and subsequent calving seasons should be reduced to three consecutive months. This reduces the constant exposure that occurs with year-round calving.
  - b. Separation of herds into smaller units for calving.
    - i. Dramatically reduces probability of exposure
    - ii. Further dividing based on stage of gestation
    - iii. Heifers in their first pregnancy are more susceptible
    - iv. Just prior to and at calving
      - 1. nearly all transmission occurs at time of abortion/calving
  - c. Restriction of fresh cows.
- 9. Good hygiene

- a. If possible, isolate cows that are close to calving and dispose of placenta, etc.

#### 10. Testing schedules

- a. Work within normal management practices if possible
- b. Ability to test effected by size of herd, terrain, weather, calving season
- c. Test interval should fit disease situation and risk within the particular group. May want to test certain groups of animals more frequently
- d. If limited in opportunity – need to at least do pre-calving (within 30 days is ideal) and post-calving test.
- e. With very large herds, may need to prioritize
- f. Increase frequency of testing with high incidence of disease, evidence of continued spread (abortions, lack of vaccination)
- g. Test those that have been exposed to reactor animals
- h. Cows close to calving

#### 11. Dairy Herds

- a. Separate calving facilities, cleaning and disinfection often more critical than with beef herds.
- b. Increased human infection
  - i. Handling calves, placentas, etc.
  - ii. Drinking raw milk
  - iii. Advise dairy personnel of risks and necessary precautions (use of Brucellosis Ring Test)

#### 12. Post Quarantine Release (PQR) Tests

- a. Very important 6-12 months later
- b. Consider doing 2-3 PQRs if any question.
  - i. Herds that may have retained heifers
  - ii. Herds that are difficult to gather
  - iii. Large herds
  - iv. Continued exposure potential

#### 13. Community Evaluation and Testing

- a. Proximity of other cattle, affected wildlife in the vicinity
- b. Fence conditions and terrains
- c. Testing history of vicinity herds
- d. Revisit community status frequently, and at PQR time

#### 14. Brucellosis Eradication Program Lessons

- a. Eradication efforts seemed very forthright, but ended up being very complex



- b. The program was constantly adjusted as knowledge and experience were gained
- c. The same principles apply to the eradication of other diseases
  - i. The importance of epidemiology
  - ii. Local control leading to eradication

15. Lessons Learned from the "Bangs Wars"

- a. Regulations don't do a good job of preventing or eliminating disease-commitment by herd owners does
- b. That commitment comes from understanding the need to do certain things: a herd plan tailored to their herd, their abilities, and their particular disease or disease risk situation
- c. Feed in troughs instead of on the ground
- d. Paying attention to appropriately handling susceptible animals and test schedules tailored to the herd situation will do the best job of preventing the disease, and/or detecting it the earliest
- e. "Cook book" testing schedules conducted without regard to the epidemiology of the disease doesn't work well
- f. Must vaccinate, but it isn't a silver bullet
- g. The first herd plan developed with the owner is rarely the ideal one
  - i. Shock and anger factor
  - ii. Usually reluctant to change management
  - iii. More understanding develops over time, and as successes occur
  - iv. Important to revisit and update
- h. Provide options and explain potential outcomes and let the owners decide what they can do

What would Dr. Ragan do?

1. Learn about the dynamics of the risk – Where do the elk frequent? Where do they calve? Which cattle have contact with elk? Where are the cattle when they are heifers, heavy bred and/or calving?
2. Handle each herd in the area of elk feedgrounds as very high risk. Manage as you would an affected herd.
3. Develop an individual herd plan for each herd addressing all factors listed above.
4. Thoroughly educated owners on management and prevention practices.
5. Develop a rapport with the owners and work together to answer questions, assist in management decisions.

6. Increase surveillance in risk herds.
7. One size does not fit all (develop a wish list of BMPs and achieve compliance through flexibility, education and adaptability)
8. Private vet training session (overview of Brucellosis, clinical signs, epidemiology and preventative measures, develop herd plans)
9. Distribute public information (short fact sheets) on herd management for prevention (salebarns, feed stores, etc.)

Following Dr. Ragan's presentation there was a "test" and question and answer session. The Team then resumed its discussion of recommendations.

**Recommendations for Alleviating Brucellosis in Cattle and Preventing the Transmission of the Disease:**

4. USDA-APHIS should base a federal Veterinarian in the risk area.
5. USDA-APHIS should include in the Brucellosis Review Program recommendations regarding wildlife.
6. The state of Wyoming will support efforts to either seek an exemption under the Select Agent Rule so that applied research on *Brucella abortus* can continue to be performed in secure, federally approved, outdoor facilities in Wyoming and elsewhere or have the strain reclassified as an Agricultural Agent of Concern.
7. The veterinarians in the risk area should be provided additional training, by the Wyoming State Veterinarian and USDA-APHIS, in Brucellosis management and surveillance.
8. Cattle producers in the direct vicinity of the elk feedgrounds should develop individualized cattle herd management plans. This should be done in conjunction with the development of individual elk feedground Brucellosis management plans. USDA-APHIS should be involved in this effort.
9. All cattle producers in the risk area should report any cattle abortion. Once reported, the veterinarians in the risk area should investigate these abortions. The Legislature should allocate funding to accomplish this surveillance.
10. The Governor and Wyoming Congressional Delegation should coordinate an effort to fund the research and development of a more effective Brucellosis vaccine for cattle, elk and bison.
11. Institute for Environment and Natural Resources (at the University of Wyoming) should investigate and explain incentive programs or ranch

- enterprise which producers may employ to reduce wildlife/livestock transmission risk.
12. Wyoming State Veterinarian and USDA-APHIS should identify herds which should be subject to whole herd vaccination.

The group was directed to forward wording and other recommendations to Rob Hendry.

The May Minutes were then discussed for approval. Cathy Purves suggested changes to reflect a discussion that took place concerning habitat improvement projects. Dr. Galey suggested that "habitat improvement projects in the area were discussed by the group," be inserted in the Minutes. Cathy Purves also suggested that Senator Hines discussion relative to habitat banking and other alternative forms of providing habitat be included in the minutes. Rob Hendry then moved approval of the Minutes, as amended. John Etchepare seconded the approval. The vote was unanimous.

Albert Sommers read an e-mail from Brad Mead concerning fencing. Dr. Galey noted the fencing discussion from the previous day. Rob Hendry noted that most of Mr. Mead's notes were incorporated into the BMPs. Mr. Sommers indicated that fencing of feedgrounds should be included in the discussion. The group then took public comment.

Tom Thorne moved to adjourn the meeting with Cathy Purves seconding. The vote to adjourn was unanimous.